by Lawrence Bridge☆

Business Investment and Sales in 1952

BUSINESS looks forward to another year of high plant and equipment expenditures in 1952, and also expects a record sales volume. Capital outlays reported this year at $24.1 billion are about 4 percent above the previous high in 1951.[1] The expected relative increase in physical volume is probably only slightly less than the rise in dollars.

Higher fixed investment outlays in 1952 are programed by every major industry, except the commercial and miscellaneous group. Associated with these programs, every major group expects higher 1952 sales. However, both investment and sales anticipations for this year are generally quite close to seasonally adjusted rates at the beginning of the year. Examination of the data by size of firm indicates that all size groups expect sales gains from 1951, with the larger companies generally anticipating the greater increases. Only the larger concerns expect a rate of capital expansion higher than last year, when record outlays were made by all size groups.

Most industries plan expanded outlays

Manufacturing concerns and the electric and gas utilities in 1952 have programed capital expenditures 8 percent above 1951, and mining companies expect to spend 7 percent more than last year. Among transportation companies, the nonrail groups plan on increasing their investment by 19 percent from 1951, while the railroads anticipate maintenance of last year's rates. The reduction reported by the commercial and miscellaneous industries is 10 percent, with declines in most sectors more than offsetting the expected increase by communication companies.

The survey results indicate that capital spending plans for each of the first two quarters of 1952 are at a seasonally adjusted annual rate just above $25 billion—compared to slightly under $24 billion in the last two quarters of 1951. Thus, the implied annual rate of spending intentions in the final 6 months of this year is about $23 billion. The implied rate for the second half is probably understated relative to the first half due to the tendency for under-reporting to increase with the period of forward planning. This has been found to occur in every earlier annual survey of anticipated investment and reflects the lesser completeness of future plans as compared to near-term programs. This factor also results in some tendency toward understatement of the annual programs.

Making allowance for this factor, the seasonally adjusted annual rates of planned capital outlays in the first and second half of this year might be of the order of $25 billion and $24 billion, respectively. Manufacturers' programs indicate a decline in investment from the first to second half of somewhat over $1 billion at an annual rate; the utilities and nonrail transport companies are expecting substantial increases, while other industries show lagging tendencies in the final half of 1952.

[1] This article is based on the results of a survey of plant and equipment programs and sales expectations in 1952 reported during February and early March by a sample of nonagricultural concerns. This survey was conducted jointly by the Office of Business Economics and the Securities and Exchange Commission.

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Material supply situation somewhat easier

This year will experience increasing capacity of both the metals producing and the capital goods industries coupled with stabilizing allocations of materials to meet current defense schedules. Thus, it would appear that materials supply except possibly in the early months of this year, will not be a serious limitation on the realization of business capital programs. In the latter part of 1952, these programs indicate a shift in resource utilization from some well-advanced defense programs (such as steel) to other expanding programs (such as petroleum) as well as to less essential facilities now restricted by materials allocations.

This shift will be facilitated by recent actions of the National Production Authority which has raised its third quarter allocations of steel, copper, and aluminum to the less-essential programs substantially above the second quarter. In addition, direct construction controls on commercial building have been considerably eased. To some extent these actions probably were not anticipated by business at the time of reporting.

Substantial capital expansion in 1951

The expansion of industrial facilities was at record rates in 1951. The final estimate for capital expenditures of $23.3 billion was 30 percent higher in dollars, and one-fifth in physical volume, above 1950. All major industries and all sizes of firms contributed to this increase.

Expenditures rose rapidly in the first half of 1951, and then at a slackening rate in the following 6 months. The retardation in growth in the last half reflected reductions in fixed investment by consumer goods manufacturers and by commercial companies as the effects of materials allocation and the easing in consumers' markets were felt.

Capital outlays by manufacturers of military and producers' goods, mining concerns, transportation companies, and the utilities continued upward throughout 1951. These groups were aided by Government action in materials allocation, defense orders, and assistance under the rapid tax amortization and other facilities expansion programs.

The largest increase in capital investment from 1950 to 1951 occurred in manufacturing, with all sub-industry groups, excepting apparel, contributing to the rise. Increases in this group ranged from 20 percent in food and fabricated metals to more than 100 percent in iron and steel, nonferrous metals and transportation equipment. Capital improvements by the railroads in 1951 rose about 35 percent, and nonrail transport companies spent 20 percent more than in 1950. The utilities, mining and commercial companies each increased their rates of fixed investment from 1950 to 1951 by about 15 percent.

Experience with Earlier Surveys

In evaluating the 1952 investment programs, it is of value to examine the results of previous years' surveys of capital spending intentions—with particular attention to the experience in 1951, another year of defense mobilization. The major findings of a study of past investment surveys that affect the appraisal of current programs are as follows: (1) larger companies are more accurate in their projections than are the smaller firms; (2) large-scale investment programs (relative to fixed assets) are more likely to be realized than are minor expenditures; (3) there is a close relationship between movements in construction and equipment prices and deviation between actual and programed outlays; and (4) there is a systematic tendency for businessmen to omit the more tentative projects from their reported forward plans.

The first three factors all point to a greater firmness in the 1952 programs than is generally found in these surveys. The rapid advance in prices was halted early in 1951 and are now under regulations, although some advances continue. Also, as reported earlier, the anticipatory data for this year show that the larger concerns account for a higher proportion of outlays than they did in 1951. Third, this year's capital programs appear to contain a much greater than usual number of very large expansion projects.

The fourth factor listed above implies that aggregate projected expenditures are probably understated in the latter part of the year. This would apply particularly to commercial companies in view of the easing of construction controls in this area.

1951 capital programs generally realized

Expenditures for new plant and equipment in 1951 totaled \$23.3 billion as compared to outlays programed in the early part of that year at \$23.1 billion.[2] Examination of the industry groups indicates that manufacturers as a whole showed no deviation from their planned outlays, the railroads and electric and gas utilities spent only 1 percent more than anticipated, while the commercial and miscellaneous group invested 6 percent more. Only mining and nonrail transport companies did not meet their programs—by 11 and 17 percent, respectively.

Within manufacturing, capital expenditures by the electrical machinery, paper, textiles, and nonautomotive transportation equipment industries were within 5 percent of their anticipated outlays, while chemicals, petroleum, iron and steel fabricated metals, and motor vehicles were within 10 percent. Nonelectrical machinery fell short of their schedules, and stone, clay, and glass companies exceeded their programs by 12 percent each. Only nonferrous metals and the food and beverage group fell outside this range. The deviation in the former industry was almost entirely among aluminum companies where capital outlays were four times those in 1950, as against anticipated expenditures of over five times.

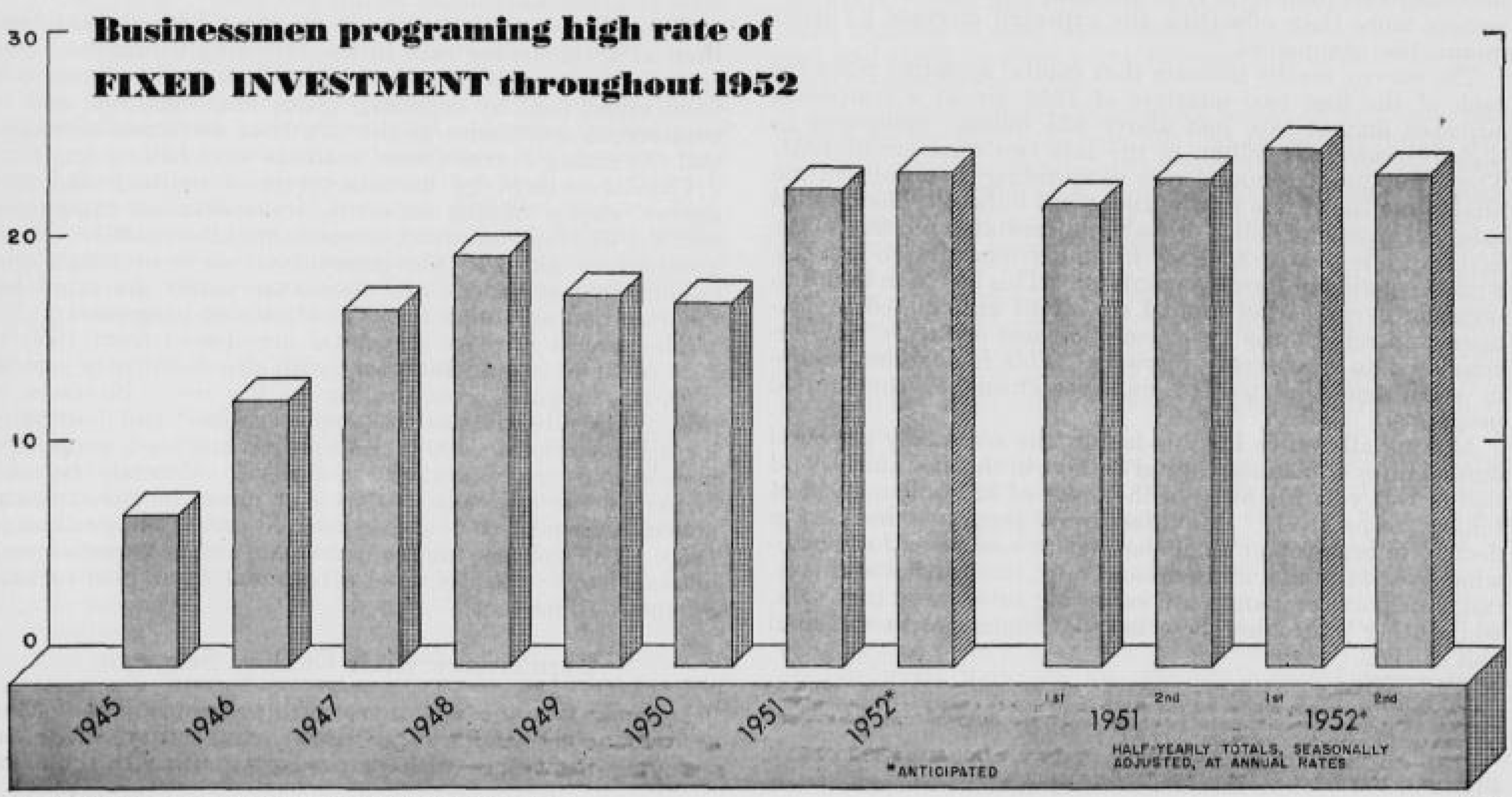
Manufacturers' Investment Programs

Manufacturers have scheduled plant and equipment expenditures in 1952 at \$12.1 billion—as compared to \$11.1 billion in 1951 and \$9.1 billion in the pre-Korean peak year of 1948 (see table 1). Allowing for increases in capital goods prices, the realization of current programs would bring the physical volume of additions in 1952 to some 15 percent above 1948 and about half that amount above last year.

While the programed increase in manufacturers' capital outlays this year is moderate when compared to the rise in 1951, it should be noted that the capacity increase last year was the largest in the postwar years—a period during which rough estimates suggest capacity was expanded by over two-fifths.[3] In addition, the anticipated increase in manufacturing outlays during 1952 is equal to that expected for all industries combined. The dominant position of manu-

[2] The anticipated figure of \$23.9 billion as reported in the April 1951 Survey has been adjusted to take into account the recent revision of the manufacturing series. (See SURVEY, December 1951). This adjustment has been made by applying the anticipated relative change from 1950 to 1951 in each manufacturing industry to the revised estimates for 1950.

[3] This year's programs will bring the postwar increase in manufacturers' capacity to one-half.



U. S. DEPARTMENT OF COMMERCE, OFFICE OF BUSINESS ECONOMICS 52-39

Table 1.—Expenditures on New Plant and Equipment by U. S. Business, 1945–52[1]

[Millions of dollars]

Industry	1945	1946	1947	1948	1949	1950	1951	1952[2]	1951 January–March	1951 April–June	1951 July–September	1951 October–December	1952 January–March[2]	1952 April–June[2]	1952 July–December[2]
Manufacturing	3,983	6,790	8,703	9,134	7,149	7,491	11,130	12,070	2,154	2,802	2,841	3,335	3,120	3,180	5,830
Durable goods industries	1,690	3,112	3,407	3,483	2,594	3,135	5,168	5,994	923	1,231	1,363	1,652	1,615	1,678	2,691
Primary iron and steel	198	490	638	772	590	598	1,304	1,080	190	293	362	479	484	478	737
Primary nonferrous metals	54	83	178	193	151	184	277	533	46	63	70	100	109	124	300
Fabricated metal products	216	350	379	343	271	350	421	398	97	104	100	110	114	100	184
Electrical machinery and equipment	123	253	304	269	216	245	359	493	63	87	89	120	111	129	253
Machinery except electrical	316	611	619	627	393	411	675	718	131	148	181	224	200	195	317
Motor vehicles and equipment	262	640	604	474	349	510	736	834	130	199	207	202	230	(6)	(6)
Transportation equipment excluding motor vehicles	56	109	95	106	67	82	182	246	25	42	54	62	70	68	110
Stone, clay and glass products	100	241	320	259	161	250	358	348	75	69	100	114	80	(6)	(6)
Other durable goods[3]	305	429	479	610	380	534	820	733	172	213	209	232	196	177	391
Nondurable goods industries	2,293	3,678	5,296	5,651	4,555	4,356	5,963	6,078	1,230	1,571	1,476	1,684	1,505	1,541	3,030
Food and kindred products	337	518	669	721	620	623	657	470	157	194	163	142	133	123	220
Beverages	97	157	277	232	240	237	311	282	78	92	70	72	67	75	139
Textile mill products	200	342	510	518	471	450	605	512	168	216	107	183	147	121	244
Paper and allied products	116	232	271	383	298	327	480	372	100	122	126	134	103	93	170
Chemicals and allied products	370	800	1,060	941	670	771	1,283	1,453	264	330	319	372	334	352	767
Petroleum and coal products	879	1,087	1,736	2,100	1,780	1,587	2,014	2,478	256	400	511	857	595	633	1,250
Rubber products	118	189	143	102	61	102	157	250	40	43	42	61	63	62	124
Other nondurable goods[4]	261	408	530	464	371	349	327	273	81	95	79	71	72	81	120
Mining	443	557	693	902	736	684	796	863	183	203	199	211	213	236	404
Railroad	563	574	945	1,319	1,350	1,136	1,641	1,539	393	432	377	449	395	401	743
Other transportation	321	680	795	700	525	437	511	600	125	130	129	128	140	155	304
Electric and gas utilities	539	1,045	1,897	2,983	3,140	3,187	3,577	3,844	763	893	933	988	838	842	2,164
Commercial and miscellaneous[5]	1,477	4,230	4,429	5,304	5,119	4,917	5,735	5,180	1,343	1,407	1,374	1,649	1,345	1,325	2,510
Total	7,496	12,922	17,420	20,932	18,021	17,832	23,290	24,123	4,993	5,803	5,844	6,672	6,051	6,038	11,974

[1] Excludes agriculture. These figures do not agree precisely with the totals included in the gross national product estimates of the Department of Commerce. The main difference lies in the inclusion in Commerce figures of certain outlays charged to current account.
[2] All estimates for 19[illegible] are based on anticipated capital expenditures of business as reported in February and early March.
[3] Includes lumber, furniture and fixtures, instruments, ordnance and miscellaneous manufactures.
[4] Includes apparel and related products, tobacco, leather and leather products and printing and publishing.
[5] Includes trade, service, finance, communications, etc.
[6] Data not available separately but are included in totals.

Source: U. S. Department of Commerce, Office of Business Economics, and Securities and Exchange Commission.

facturing in the overall investment picture is typical of the postwar years. Manufacturers have accounted for about 50 percent of total investment and a much higher proportion of the year-to-year changes. Last year, this industry accounted for over 70 percent of the total rise in fixed investment. In 1949, the largest relative cutback in capital outlays occurred in manufacturing, with offsetting increases and decreases in investment among nonmanufacturing industries.

Anticipated expenditures for the full year 1952 are just about equal to their rate at the end of 1951. However, outlays in the first half of this year are anticipated to be over $6.2 billion as against somewhat over $5.8 billion in the final 6 months of 1952. The projected decline in the second half on a seasonally adjusted basis is about 15 percent—although allowance for understatements in the second half of the year (discussed above) might bring the anticipated decline closer to 10 percent.

Defense industries up most

While capital outlays in almost all manufacturing industries rose from 1950 to 1951, the increases were substantially greater among the defense-related industries. The 1952 programs show the same divergency—although the anticipated increases from 1951 among defense-supporting industries are more moderate than those which occurred last year, while almost all nondefense industries are expecting to reduce their 1951 rates of fixed investment. Thus only petroleum, chemicals, rubber, and all the metals industries (except fabricated metals) are scheduling greater capital outlays this year (table 2).

Nonferrous metals companies have programed the largest increase from 1951—92 percent—with the electrical machinery, transportation equipment (other than motor vehicles) and rubber industries each anticipating spending over one-third more than in 1951. Iron and steel companies and petroleum companies are expanding their 1951 investment rates by about one-fourth and chemicals and motor vehicles by one-eighth. Nonelectrical machinery producers were scheduling additions at 6 percent above 1951, while all other industries were anticipating reductions in capital outlays in 1952 ranging from 5 percent in fabricated metals to about one-fourth in paper, textiles, and foods.

As a result of its greater participation in the defense effort, 1952 anticipated outlays in the durable-goods sector are about 16 percent above 1951 as against an increase of 2 percent in nondurable goods industries. Current plans of the latter group, however, call for a considerably smaller cutback in fixed investment from the first to second half of this year than do the programs among durable goods producers—so that expenditures by both groups in the final 6 months of this year are expected (on an adjusted basis) to be approximately at the rates prevailing in the corresponding period last year.

The lesser decline in the nondurable goods area between the first and second half of 1952 is attributable to the strength in the chemicals, petroleum, and rubber industries—with the former group expecting greater outlays in the second half, and the latter two industries maintaining first half rates. All other soft goods industries show a continuation of the downward trend which started in mid-1951.

Among durable goods groups, a substantial upward movement in the second half of this year is planned by nonferrous metals companies, and maintenance of first half expenditures is reported by electrical machinery companies. Programs of other hard goods industries call for substantial declines in the second half of this year—particularly in iron and steel, nonelectrical machinery and transportation equipment. In the latter industry, aircraft manufacturing outlays account for the decline, with the railway car builders' programs strong throughout 1952. It should be noted that these programs are on private account only and exclude Government investment, which is particularly large in aircraft facilities.

Table 2.—Anticipated Changes in Capital Investment and Sales, 1951–52 [1]

Industry	Percent change in expectations, 1951 to 1952	
	Capital outlays	Sales
Manufacturing	8	5
Durable goods industries	16	7
Primary iron and steel	30	4
Primary nonferrous metals	92	1
Fabricated metal products	−5	1
Electrical machinery and equipment	37	12
Machinery except electrical	6	20
Motor vehicles and equipment	13	−2
Transportation equipment except motor vehicles	36	50
Stone, clay and glass products	−10	1
Other durable goods	−11	2
Nondurable goods industries	2	3
Food and kindred products	−28	5
Beverages	−16	14
Textile mill products	−26	−9
Paper and allied products	−24	−2
Chemicals and allied products	13	3
Petroleum and coal products	23	3
Rubber products	34	3
Other nondurables	−16	3
Mining	7	11
Railroad [2]	6	([2])
Other transportation	19	10
Electric and gas utilities	8	10
Commercial and miscellaneous	−9	1
Grand total	4	([2])

[1] These anticipations were reported by business during February and early March.
[2] Revenue expectations were not obtained from railroads.

Source: United States Department of Commerce, Office of Business Economics, and Securities and Exchange Commission.

To a large extent, the greater relative declines in the latter groups reflect efforts under the facilities expansion programs to increase capacity in certain sectors of these industries as quickly as possible. Thus the rapid expansion of steel capacity was encouraged by the early granting of a large volume of tax amortization certificates as well as by favorable treatment in materials allocation. As a result, outlays under these programs have now reached their peak. A similar situation exists in the aircraft expansion program.

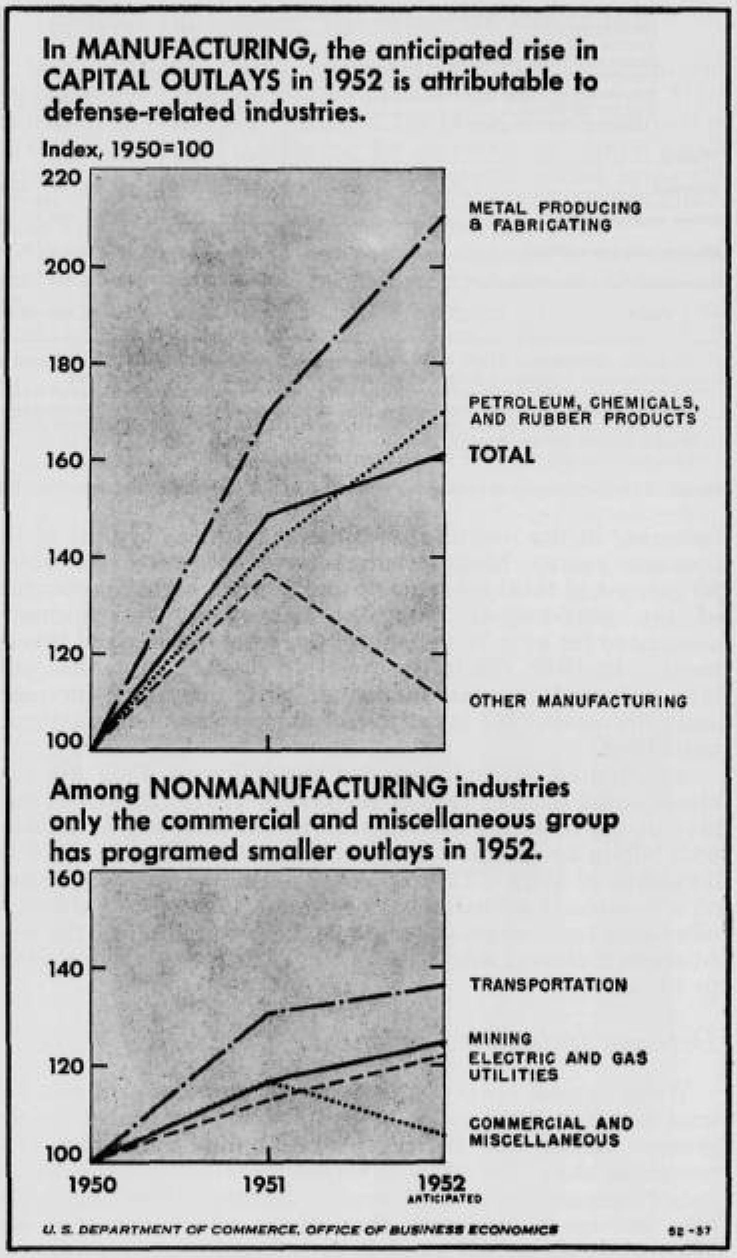
Federal aids to expansion now at peak

The contribution to business capital outlays of governmental aids to facilities expansion (through rapid tax amortization, direct loans and guaranteed purchase contracts) appears to be close to a peak in the current period. At the end of last year 42 percent of the $12.4 billion of projects with tax amortization certificates were in place and holders of certificates expect this proportion to exceed 50 percent by the end of the first quarter of 1952. The corresponding ratios for $9.2 billion of manufacturing facilities are 37 and 47 percent, respectively. Since the end of 1951 some $4.5 billion of additional proposed projects (about one-third in manufacturing) were approved.[4]

[4] Many of these projects are already under way—so that their inclusion would probably not significantly change the above proportions.

Manufacturing facilities put in place during the fourth quarter totaled over $900 million, and expenditures expected in the first quarter of this year by holders of certificates issued prior to 1952 amount to more than $800 million. Since the bulk of these facilities are scheduled for completion by the end of 1953, actual fourth quarter 1951 outlays may be about 30 percent higher than average quarterly expenditures under this program during 1952 and 1953. However, as noted above, this ratio does not allow for certificates granted [after the end of last year or for those which may be granted] in the future.

Table 3 shows a comparison of current outlays and average expenditures in 1952 and 1953 necessary to complete manufacturing programs with certificates. These outlays now account for about 30 percent of total investment by manufacturers in new plants and equipment. They are heavily



concentrated in a few industries and negligible in many important areas. A more important qualification is that the programs under certificates of necessity cover only a small proportion of replacement expenditures. This type of expenditure accounts for roughly one-half of aggregate capital outlay and, being considerably less postponable than expansion outlays, is a significant stabilizing factor in changes in fixed investment.

Table 3 indicates that expenditures expected in the first quarter of this year by aircraft and nonelectrical machinery plant on projects with certificates of necessity were substantially higher than the quarterly average necessary to complete these programs by the end of 1953. It will be noted that expected 1952 expenditures reported to the survey by these industries show this easing in the second half of this year.

The large total still remaining in steel reflects the inclusion in proposed programs of a few large projects where construction may never be initiated. Omission of these projects would corroborate the finding in the present survey that primary steel producers anticipate a reduction in capital outlays during the last half of this year.

The strength during this period in the aggregate programs of petroleum, chemicals, and nonferrous metals companies is confirmed by the less-than-average ratio of current outlays to 1952–53 scheduled outlays in projects with certificates of necessity. Future expenditures for approved programs in paper and pulp are somewhat stronger than indicated in the present survey, while the reverse is true for electrical machinery.

Greater expansion by large firms

The survey results indicate that only the larger manufacturing firms have programed increases in capital outlays from 1951 to 1952. Firms with assets of from $50 million to $100 million and those with assets of over $100 million expect increases of more than one-fifth. All smaller assets-size groups expect declines: 7 percent in the $10 million to $50 million group and about 10 percent in each of the groups with assets under $10 million. Data for selected size groups and their associated sales expectations are shown in table 4.

Table 3.—Manufacturing Programs Covered by Certificates of Necessity Issued Through Dec. 31, 1951 [1]

[Millions of dollars]

Item	Total reported cost	Value put in place during fourth quarter 1951	Implied average quarterly outlays in 1952 and 1953 [2]	Ratio of fourth quarter 1951 to 1952–53 quarterly average [2]
Steel and related programs	3,156	320	240	1.3
Nonferrous metals	807	87	72	1.2
Aircraft and components	567	77	41	1.9
Nonelectrical machinery	417	70	28	2.5
Electrical machinery	234	31	15	2.1
Chemicals	1,520	115	127	.9
Petroleum refining	1,004	56	91	.6
Paper and pulp	533	43	42	1.0
Other manufacturing	923	130	62	2.1
All manufacturing	9,161	929	716	1.3

[1] These data are classified by type of plant and are not strictly comparable to the figures in Table 1 which are on a company-wide classification.

[2] This assumes that all programs will be complete by the end of 1953. Certificate holders' present schedules indicate almost 95 percent completion by the end of 1953.

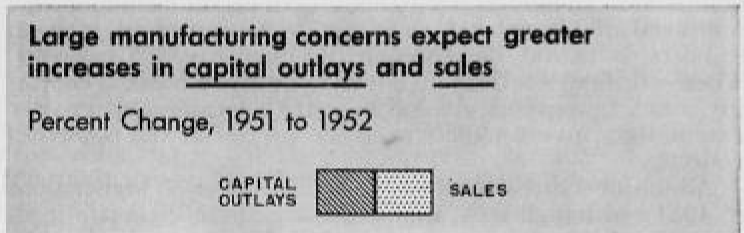
Source: Defense Production Administration.

This direct relationship between size of firm and change in investment rate is found in most industries—although the difference in magnitude of the change among size-groups in the aggregate is very considerably influenced by the fact that large companies predominate in defense-related industries. Only the group with assets over $100 million shows no apparent decline from the first to second half of this year.

Electric utilities up, gas utilities lower

The electric and gas utilities anticipate additions to facilities of $3.9 billion in 1952, as compared to $3.6 billion last year. While the 1952 total continues an upward trend in capital outlays uninterrupted throughout the postwar period, the increase from 1951 is entirely attributable to the expected rise of about one-fourth in expenditures by electric utilities. Fixed investment by gas companies is scheduled at about one-sixth lower than last year.

The electric companies expect rising outlays throughout 1952, and are placing special emphasis on generation and transmission facilities this year with little change anticipated



in distribution and other capital expenditures. The decline in investment programed by gas utilities reflects a reduction in pipeline outlays which were at record rates in 1951.

Railroad outlays level out

The railroads anticipate little change in 1952 from their record capital expenditures of $1.5 billion last year. Their current schedules also indicate a rather stable rate of investment in the first and second half of this year. On a regional basis, however, declining expenditures from 1951 are expected for the year as a whole by railroads in the southern and western districts—offset by increases anticipated by roads in other districts.

The rails also appear to be raising their rates of road investment and lowering equipment outlays. It should be noted, however, that except for 1948, freight car deliveries in 1951 exceeded all years since 1925. Deliveries last year totaled 96,000 cars. Unfilled orders on January 1 of this year were about equal to the backlog at the beginning of last year, after a steady decline of 30,000 cars from the postwar peak in March 1951.

Among nonrail transport companies, the airlines have programed a very substantial increase in capital expenditures

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in 1952, while water transportation and bus and transit companies expect slightly lower investment rates. Planned outlays by commercial companies during 1952 indicate a continuation of the decline which began in mid-1951, though at a slackening rate in the final 6 months of 1952.

1952 Sales Expectations

The current survey of capital budgets also obtained information on sales expectations in 1952 from the reporting companies. These data shed some light on the businessman's appraisal of his market and provide some insight into an important factor determining his investment decisions. These sales expectations do not have so firm a basis as capital investment programs, since sales are to a considerably greater extent than investment outside the control of the reporting concern.

All major industries expect sales in 1952 to be higher than in 1951—although most industries anticipate little rise from current rates.[6] Mining companies expect their sales in 1952 to exceed 1951 by 11 percent, electric and gas utilities and nonrail transport companies anticipate revenue increases of 10 percent each, manufacturing firms look forward to a 5-percent gain, while the commercial and miscellaneous group expect sales only 1 percent above last year (see table 2).

Large increases in durable goods

The durable goods industries in 1952 are expecting sales increases above 1951 of over 7 percent as against 3 percent in the nondurable goods sector. The higher sales expectations of hard goods producers reflect to some extent the currently more favorable sales and orders position of defense-supporting industries. The same factor partly explains the finding that, as in fixed investment programs, the larger manufacturing companies are anticipating greater sales gains than are the smaller firms—although all size groups are thinking in terms of higher sales than in 1951.

Table 4.—Manufacturing Corporations: Percentage Changes in New Plant and Equipment Expenditures and in Sales, by Total Asset Size.[1]

Item	Total assets size			
	Under $1 million	$1 million to $5 million	$5 million to $100 million	$100 million and over
	Percentage change from previous year			
Plant and equipment expenditures:				
1950	+9	+23	+4	+1
1951	+40	+46	+16	+43
1952 [2]	−8	−11	+1	+22
Sales expectations:				
1952 [2]	+2	+3	+6	+6

[1] Size based on assets as of the end of 1949.
[2] 1952 expectations were reported by business during February and early March.

Source: U. S. Department of Commerce, Office of Business Economics, and Securities and Exchange Commission.

With the exception of moderate declines in sales expectations of motor vehicle and furniture companies, all major durable-goods industries expect an improvement from 1951. The largest anticipated gains were in transportation equipment (50 percent), electrical machinery (20 percent), and nonelectrical machinery (12 percent). The large increases expected by the two latter capital goods industries in part reflect the increased plant and equipment expenditures programed by business as a whole. Iron and steel companies are anticipating a 4-percent gain in sales while smaller increases are expected by other durable goods industries.

Among the soft goods producers, the largest increases (14 and 13 percent, respectively) are expected by the beverages and tobacco industries, probably reflecting the effect of the higher excise taxes instituted in November 1951. Food and petroleum companies look forward to 4-percent sales advances in 1952, and chemicals and rubber companies anticipate gains of 3 percent. Textiles and paper expect a lowering of sales by 9 and 2 percent, respectively, with other nondurable goods industries showing minor changes.

Nonmanufacturers expect greater sales

Retailers anticipate their 1952 sales will be about 3 percent higher than last year—a rate somewhat higher than the seasonally adjusted rate in the early months of this year. Here, too, all sizes of stores were expecting higher sales, with the larger stores expecting slightly larger relative gains.

Both the electric and gas utilities were thinking in terms of higher revenues in 1952 (somewhat above end of 1951 rates), with the latter group expecting a greater relative gain than the former group. Airlines and local transit lines anticipated sizable increases in revenues, while the water carriers expected little change from 1951 revenues.

Sales and fixed investment expectations

A general conformance is found within industries when sales and capital outlays are ranked in accordance with relative changes in 1952 expectations from 1951. The electric and gas utilities and nonrail transportation rank high both in their expected increases in sales and in their anticipated capital expansions. Commercial and miscellaneous companies report the smallest increase in sales expectations and are the only major group scheduling lower capital expenditures.

Within manufacturing, the transportation equipment and electrical machinery industries rank first and third in expected sales growth in 1952, and second and third in planned expansion. At the other end of both scales are found textiles, paper, stone, clay and glass, and fabricated metals. Conspicuous exceptions to the general rule are tobacco, beverage, and nonferrous metals companies. As noted above, the relatively large increases in dollar sales expected in 1952 by the former two industries are affected by the recent increase in excise taxes. In the nonferrous metals industry, both aluminum and copper companies ranked very high in anticipated capital expansion in 1952 but only the former group ranks high in sales gains expected this year.

Business Expectations and Economic Activity in 1952

From the point of view of overall economic activity, 1952 investment in new plant and equipment—barring any significant change in business investment decisions—will help to maintain gross national product at a high level throughout the year. However, in view of the stability in capital expenditures, this sector will not exert the same

(Continued on page 24)

[6] Revenue anticipations were not collected from the railroads.

on a total rather than a per household basis,[3] and (b) the use of the same factors on a linear rather than a logarithmic basis.[4] These accounted for a somewhat smaller proportion of the variation in new auto registrations, and were less logical relationships, though they gave similar current estimates to the equation used.

One of the important limitations of the method used in estimating the demand for automobiles is that the relationships are based upon a 16-year period which ended 12 years ago. By any standard this is an uncomfortably long period to extrapolate results, and values for some of the variables are well beyond the values prevailing in the base period. The number of households has risen by two-thirds since 1925 and the scrappage age is now considerably above the peak of 10 years reached in 1940. On the other hand, real income per household is only about one-sixth higher than the peak reached during the base period in 1929. The price ratio in recent years is moderately above any base year.

The price used for automobiles is the retail price index of the Bureau of Labor Statistics for the period for which it is available, 1935 to date, linked to an index derived from the wholesale value and number series of the Automobile Manufacturers Association for prior years. These two series differ in a number of characteristics, the most important of which is that the BLS data represent specific models or makes, whereas the AMA are derived from the total sales in each year and vary with the changing product mix of the industry.

The new registrations estimates are affected by special provisions in certain State laws which result in small differences between sales and registrations of new cars. Neither of these limitations seems sufficiently important to affect seriously the results obtained.

New Construction Activity in 1952

(Continued from page 12)

Long-run backlogs of demand large

The figures discussed above reflect only the immediate backlog of public construction which can be expected to influence activity during the next year or two. Of significance also is the fact that for most types of nondefense public construction, much larger backlogs as indicated by need are plainly evident. Despite the deficiencies in both streets and highways, the present level of highway construction in terms of constant dollars is below that for 1939 and 1940.

The longer-run backlog of other types of public construction is also large. Estimates indicate that approximately 250,000 new classrooms are presently needed to correct only the most obviously unsatisfactory conditions. An additional 350,000 new classrooms will be needed during the course of the next 7 years to keep pace with the normal replacements and the increase in school enrollment. This program is estimated to cost approximately $20 billion. Further, hospital bed shortages are presently estimated at about 900,000, as compared with new additions in 1951 of 40,000. These figures serve to point up the potential magnitudes involved in the longer-run backlog of nondefense public construction, provided the means can be found to finance and support an expansion of this nature.

[3] Calculated from a least squares regression for the years 1925–40. Equation: $Y=0.000006110 X_1^{[illegible]} X_2^{[illegible]} X_3^{[illegible]} (0.841)^{X_4}$, where X_1=real disposable income in millions of 1939 dollars; X_2=percentage of current to preceding year in real disposable income in millions of 1939 dollars; X_3 and X_4 are the same variables shown in footnote 4 on page 20 and Y=new private passenger car registrations in thousands. Coefficient of correlation $R=0.97$.

[4] Calculated from a linear least squares regression for the years 1925–40. Equation: $Y=50.5013+0.1001+0.0941X_2-1.1244X_3-0.4374X_4$, where all variables are the same as those shown in footnote 4 on page 20, except X=change in real disposable income per household in 1939 dollars. Coefficient of correlation $R=0.96$.

Business Investment and Sales in 1952

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expansionary force on the economy as in the earlier post-Korean period.

Businessmen's sales expectations for 1952 show not much change from actual rates in the early part of the year. Possibly as a reflection of businessmen's projection of maintenance in sales in the near-term, inventory investment has been evidencing stabilizing tendencies in recent months at levels not far out of line with usual sales relationships. Future inventory movements, therefore, may be expected to depend upon the course of sales for the rest of this year.

As to the other principal sectors of the gross national product, the major increase—and a large one—comes in Government procurement for defense which will rise throughout 1952. There is less certainty as to the trend in consumers' investment in houses or their purchases of goods and services—although, as discussed more fully elsewhere in this SURVEY, housing demand is currently quite strong and consumption expenditures are showing some firming tendencies. The latter remain low nevertheless in relation to current income.

Thus, Government is the only sector which is certain to have an expansionary effect on total economic activity in 1952. Any other significant movement in national product which may occur will probably be dependent on changes in consumers' demand.

New or Revised Statistical Series

GOVERNMENT PURCHASES OF GOODS AND SERVICES—NEW SERIES FOR 1947–1951 FOR PAGE S–1[1]

[Seasonally adjusted quarterly totals at annual rates; in billions of dollars]

Item	1947					1948					1949					1950					1951				
	I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total
Government purchases of goods and services	27.4	28.4	28.7	29.8	28.6	31.6	35.0	38.9	40.3	36.6	43.1	44.5	43.5	43.3	43.6	41.3	40.1	40.8	47.8	42.5	53.2	60.2	67.7	70.7	63.0
Federal	17.0	17.2	16.0	16.9	17.1	18.3	21.1	23.3	24.0	21.7	25.9	24.9	25.9	24.8	25.0	22.2	21.1	21.4	27.6	23.1	32.4	39.1	46.4	49.2	41.8
National security	12.9	15.6	11.6	13.2	13.3	14.6	15.6	16.9	17.2	16.1	19.4	20.5	19.4	17.0	19.3	17.0	17.3	18.1	24.1	19.1	28.9	35.3	41.8	44.1	37.5
National defense[2]	12.6	13.6	10.8	11.9	12.2	11.5	11.0	11.4	12.3	11.7	13.6	13.9	13.6	13.3	13.6	12.6	12.2	14.4	20.2	14.8	25.6	31.7	38.0	40.5	34.1
Other national security[3]	.3	2.0	.9	1.3	1.1	3.1	4.1	5.5	4.9	4.4	5.8	6.6	5.9	4.7	5.7	4.4	5.1	3.7	3.9	4.3	3.3	3.6	3.2	3.6	3.4
Other	4.7	1.6	5.0	3.8	3.8	3.7	5.5	6.4	6.7	5.6	6.6	6.3	6.5	6.9	6.6	5.3	3.8	3.2	3.4	3.9	3.5	3.7	4.6	5.1	4.2
Less: Government sales	2.1	1.3	.9	.0	1.3	1.1	.7	.4	.4	.6	.3	.3	.7	.3	.4	.3	.2	.3	.2	.2	.2	.2	.2	.2	.2
State and local	11.9	12.5	13.0	12.9	12.8	14.4	16.1	16.1	16.7	15.0	17.5	17.9	18.4	18.5	18.1	19.3	19.2	19.7	20.1	19.7	21.0	21.3	21.4	21.7	21.4

[1] Compiled by *U. S. Department of Commerce, Office of Business Economics*. New series showing additional detail of Federal purchases for 1947–51. Data on national security purchases are comparable to the war purchases series shown for 1939–46 in table 2, p. 150, and table 43, p. 207, of the 1951 National Income Supplement to the SURVEY OF CURRENT BUSINESS. An explanation of the earlier series appears on p. 135 of the Supplement.

[2] Includes the purchases of the following agencies: Atomic Energy Commission, Defense Department, Maritime Administration (before 1950), National Advisory Committee for Aeronautics, and Selective Service System; and for the following programs: Defense production and economic stabilization, foreign military assistance administered by Mutual Security Agency (formerly Mutual Defense Assistance program), and the stockpiling of strategic and critical materials.

[3] Includes the purchases of the following agencies: Maritime Administration (after 1949), National Security Council, National Security Resources Board, Philippine War Damage Commission, and State Department; and for the following foreign economic assistance programs: Those now administered by the Mutual Security Agency, government and relief in occupied areas, India Emergency Food Aid, International Children's Emergency Fund, and Yugoslav Emergency Relief Assistance.